remaining two, the chest-rule and the 3-plane stethometer, or some modification of them, are means of accurate measurement that will be found useful in the every-day study of disease. The last named of these instruments was described in a paper which appeared in the *Transactions of the Medico-Chirurgical Society* for 1873, which was noticed in the number of this Journal for October, 1874. He claims that it is of great service in the diagnosis, prognosis, and treatment of phthisis and other diseases of the chest, and supports his assertion by reference to numerous cases in which he has used it.

The other instrument, the chest-rule, is designed to facilitate the taking of notes, and "consists of thin narrow spring steel, so arranged as to form a rectangular parallelogram, 6 inches long by 3 inches wide, and divided into eighteen squares of exactly 1 inch length of side." It is so light and flexible that it may be carried in a case-book and readily applied to the chest. By its aid we may mark upon a diagram figure, the exact position upon the surface of the chest, at which, for instance, auscultation has enabled us to detect the signs of a cavity.

We will not deny that these instruments may be of service to us in the study of disease, or that they may be useful to the lecturer as means to demonstrate to his class the existence and situation of disease, but we do not see any good reason for believing that they will ever come into general use. The greater the skill a physician possesses in physical diagnosis, the less we are inclined to think will he be disposed to have recourse to them. In a case of phthisis in which the author says "no trace of thoracic mischief could be discovered by myself or by an eminent Manchester physician," the fact that the patient had lost a brother with the disease, would it seems to us, have awakened the suspicions of a careful observer, even if the general symptoms had been less unmistakable than they appear to have been.

The book, which is evidently the fruit of much labour, is illustrated with numerous diagrams and tables. J. H. H.

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ART. LII.—*A Text-book of Electricity in Medicine and Surgery, for the use of Students and Practitioners.* By GEORGE VIVIAN POORE, M.D. Lond., M.R.C.P., etc. 8vo. pp. 291. London: Smith, Elder & Co., 1876.

THIS is decidedly the best work on electricity, for the purposes of the general practitioner, that we have yet met with. It not only goes fully into the practical uses of this important therapeutic agent, but treats at sufficient length of electro-physics. The books on this subject which we have heretofore seen, either have been devoted too exclusively to the scientific study of electro-physics, or have treated of the therapeutic uses of electricity without regarding its theoretical considerations.

The book opens with a chapter on "*principles*," in which the author places before his readers all that it is necessary for them as practitioners to know of this part of the subject. Very properly he begins with details which are elementary, but without which no one can ever expect to gain a knowledge of electricity. Comparatively few physicians are conversant with these first principles, for electricity is one of those studies which is seldom included in a course of medical lectures, and text-books on medical electricity, as a rule, take it for granted that their readers are familiar with the elementary part of the subject.

It is really refreshing to find here everything made so clear and simple.

Ohm's law is explained so that it is as easy as a, b, c, and the terms "quantity," "intensity," "density," and "tension," which are invarible stumbling-blocks, are rendered so plain that the reader cannot help understanding them.

The subject of induction and the principle of the faradic machine, which are often difficult of comprehension, are made very clear by the use of diagrams taken from M. Tripier's *Manuel d'Electrotherapie*.

Chapter II. concerns batteries, and the author describes and recommends those instruments which he has personally found best. They are often apparatus with which in this country we are unfamiliar, but the principle on which they act is the same as that of all other batteries. The form of cell recommended for the galvanic current is the Leclanché element, and from our own experience with it we are prepared to endorse the high praise which Dr. Poore gives to it. On page 9 there is a cut of one of these cells, which differs from any that we have seen in this country, but it must be much more convenient for medical uses than those found here. Its capacity is that of a two-ounce vial, and the entire top is sealed with openings for the elements, etc. to pass through, so that the evaporation of the fluid must be very slight, and there can be no running over of the solution on the outside of the glass. Our readers are no doubt aware that the Leclanché element consists of zinc and carbon in a solution of chloride of ammonium. The carbon is packed in a porous cell with peroxide of manganese.

Twenty or thirty pages are devoted to the physiology of electricity, and an interesting account is given of the author's experiments on the effect of the galvanic current on muscular power. The author is of the opinion that the sympathetic in the human subject may be acted upon by the constant current, but as it cannot be isolated from the adjacent nerves in the neck, we are ignorant of the effects of galvanism on the sympathetic, and remarks that "beyond occasional dilatation of the pupil he has never seen any indication of the nerve responding to the stimulus." He states positively his belief that the brain may be influenced by the galvanic current.

This has always been a mooted question, and we observed that a recent reviewer of Bauduy's "Lectures on Diseases of the Nervous System," in the *New York Medical Journal*, remarks with much satisfaction that "the reader will be spared frequent allusions to galvanization of the brain, and other absurdities now exploded."

In the chapter on the "Method of using Electricity," Dr. Poore gives the most satisfactory and detailed account of how to use galvanism and faradism. He recommends Kidder's reophore because the sponge, which is attached at the base to a metallic disk, is in the shape of a cone, and if it be applied gently to the surface, the point forms a small electrode, but if pressed down firmly it becomes flattened out into a large one. Our own experience is that in using a sponge electrode, unless it be pressed firmly on the surface so as to bring it in close contact with the metallic base, it requires a very strong current to be felt, and then by varying the amount of pressure, as one is apt to do, inadvertently, you give the patient an unnecessary amount of pain.

In speaking of the diagnostic uses of electricity, the author advises that, when we wish to test the relative electrical condition of a nerve or muscle on different sides of a patient, we should place one electrode on the median line of the body. For example, in comparing the electrical condition of the arms he attaches one reophore to the nape of the neck, and the other he applies to the muscles of each arm. Dr. Poore does not seem to be acquainted with the very convenient stationary electrodes in use in this country. They consist of a plate of metal covered by a large sponge on one side, and on the other side is a piece of India rubber, larger than the sponge, which prevents the wetting of the patient's clothing. This electrode can be placed at the back of the neck, or on any part of the spine, or over the sciatic nerve.

We are glad to see that electrical baths are pronounced useless.

The author describes a method of using galvanism which is peculiar to himself. It consists in "the combination of a continuous galvanic current with voluntary muscular exercise." We believe this was first described by him in the *Practitioner* in 1873, and is chiefly used by him in the treatment of writer's cramp.

A large amount of space is given to the consideration of writer's cramp, and, as the author is well known for his researches in this disorder, we are glad to have the opportunity of learning fully his method of treating it.

A large number of cases are given to illustrate the uses of electricity, and are valuable because they are not only the author's own cases, but are those of other well-known writers.

A portion of the work is given to the surgical uses of electricity, including electrolysis, the treatment of internal aneurisms, and galvano-cautery.

The book is written in an agreeable and easy style, and is as condensed as the subject will permit of. One great advantage about it is that all of the best authorities on electricity are fully quoted, and the cream of their researches is given to the reader.

We congratulate the author on his success in accomplishing his object, which he modestly says in the preface has been "to produce a book which will be of use to students and practitioners," and from its handy size and good print, to say nothing of its intrinsic merit, we are sure it will prove very popular.

W. S.

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Art. LIII. — *History of the Association of Medical Superintendents of American Institutions for the Insane, from* 1844 *to* 1874, *inclusive.* Compiled from the records of the Association by John Curwen, M.D., Secretary of the Association. 8vo. pp. 121. 1875.

This very neat little volume is a complete register and directory to American Hospitals for the Insane, and their officers, past and present. Opening with the briefest possible sketch of the origin of the Association, Dr. Curwen gives an account of the organization and first meeting, Oct. 16, 1844, at Jones's Hotel, Philadelphia. The late Dr. Samuel B. Woodward, of the Mass. State Hospital at Worcester, was chosen President, Dr. Samuel White, of the Hudson Asylum, N. Y., Vice-President, and Dr. Thomas S. Kirkbride, Secretary and Treasurer. Some dozen or fifteen members formed the original body. Committees were appointed, reports and discussions listened to, and business transacted. The next meeting was held in May, 1846, since which time the sessions have been held nearly every spring. The place and date of each meeting, with names of members present, changes of officers, appointment of committees, resignations or deaths of members, and the more important expressions of opinion by the Association, are all reported in a condensed form. Obituary notices of deceased members are inserted in connection with the last meeting at which they were present.

A list of past officers with dates of service, and one of American hospitals for the insane, with the names and period of service of their superintendents from their opening, add much to the value of this work as a book of reference.